REMARKS

Claims 1-21, all the claims pending in the application, stand rejected. Claims 1, 19, 20 and 21 are amended.

Request for New Office Action

As noted subsequently with respect to the rejection of claims 3, 4, 6, 9 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Grube (6,817,052) in view of Skinner et al, the Examiner explains the rejection on the basis of a patent to Maekawa (2002/0190737); however, at paragraph 11 of the Office Action, the Examiner has expressly withdrawn any rejection based on Maekawa (2002/0190737). This renders the rejection confusing and indefinite, tarnishes the public record, and requires a new Office Action if this rejection is to be maintained. Applicants respectfully request that a new office action be issued if the present amendment does not result in the allowance of the application.

Drawings

Applicants respectfully request acknowledgment of receipt and acceptance of the originally filed drawings.

Claim Rejections - 35 U.S.C. §112

Claims 1-21 are rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. This rejection is traversed for at least the following reasons.

The Examiner notes that claims 1 and 19-21 contain the added limitation "said cleaning layer having no abrasive." The Examiner asserts that this limitation involves new matter because it does not have "proper support" in the specification as originally filed. The Examiner admits that the specification does teach that the invention is "to provide a cleaning sheet that allows for removal of foreign matter without wearing off a probe needle when the foreign matter adhering on a probe needle of a probe card is removed and without causing re-adhering of the foreign matter that has once been removed from the needle and a transporting member having such a cleaning sheet and its production method" at paragraph [0007]. The Examiner asserts that the

specification does not disclose that there is no abrasive material in the cleaning layer. In other words, some abrasive may be present, in an amount that does not present the problems overcome by the present invention.

Given the Examiner's objection and the foregoing teaching, Applicant has changed the limitation to one where the claim states that the material "does not contain additives that promote wear." Also, the claim is further amended to state that the material is "adapted to receive penetrating probe needles and retain impurities on a tip of said probe needle." These limitations are supported by the original disclosure and clearly define over the prior art.

Claims 20 and 21 are rejected under 35 U.S.C. §112, second paragraph as being indefinite. This rejection is traversed for at least the following reasons.

The Examiner notes that claim 20 recites the limitation "the cleaning sheet" and asserts that there is insufficient antecedent basis for this limitation in the claim. Similarly, the Examiner notes that claim 21 recites the limitations "the cleaning layer" and the "transporting member" and asserts that there is insufficient antecedent basis for this limitation in the claim. Applicants have amended claims 20 and 21 in a manner that should remove this basis for rejection.

Claim Rejections - 35 U.S.C. §102

Claims 1-5, 7-11, 13, 16 and 19 are rejected under 35 U.S.C. §102(b) as being anticipated by Skinner et al (4,342,793). This rejection is traversed for at least the following reasons.

Previously, Applicant argued that the present invention is directed to the structure of a cleaning sheet for removing foreign matter adhering to the tip of a probe needle of a probe card. The cleaning layer contains a urethane polymer and a vinyl polymer. The composition of the mixture is selected and adapted such that when the probe needle is stuck into the cleaning layer 1, as shown in Fig. 3A, and is drawn out from the cleaning layer 1 as shown in Fig. 3B, foreign matter on the probe needle is removed. Specifically, this motion allows foreign matter 23, such as aluminum oxide adhering to the tip of the needle, to remain in the cleaning layer and to be removed from the probe needle, as explained at pages 18 and 19. The probe needle is insertable

to a sufficient depth that enables removal of the foreign matter, while preventing wear or erosion of the probe needle tip.

Applicants have amended the claims and respectfully submits that the new limitations clearly distinguishes over the cited art.

Skinner et al

In applying Skinner to the claimed invention, the Examiner notes that certain key features of the invention are implicitly disclosed.

No Abrasive

The Examiner notes that Skinner does not mention any abrasive. Thus, the Examiner asserts that there is none in the Skinner materials and the limitation is met. In light of the Examiner's position, the claim has been amended to state that the material "does not contain additives that promote wear."

Cleaning Sheet for Removing

Applicant argued that Skinner generally teaches a resin compound having utility as a protective, transparent or translucent coating for various substrate materials, as described at col. 1, lines 10-15, and that application of the composition in a variety of ways is explained at col. 9, lines 64-68, but that there is no teaching of a use for cleaning a probe. The Examiner states that the limitation is a "statement of use" for the material. Specifically, at pages 2 and 3 of the Office Action, the limitation to a "cleaning sheet" is viewed as an intended use and the Examiner asserts that, in any event, the coatings in Skinner et al may be used for a variety of purposes including wiping debris from a probe needle.

Applicant has amended the claims to recite that the layer is "adapted to receive penetrating probe needles and remove and retain impurities on a tip of said probe needle." Clearly, this is a structural and not a use limitation. Moreover, the Examiner has no basis for asserting that Skinner has such properties, as none are taught.

Thus, Applicants respectfully submit that claims 1, 19 and 21 are allowable over the prior art, which does not teach such structural limitation nor does it suggest that the structure has the recited capability.

Claims 1, 2, 5, 7, 8 and 11-21 are rejected under 35 U.S.C. §102(b) as being anticipated by Grube (6,817,052). This rejection is traversed for at least the following reasons.

Cleaning Sheet for Removing

The newly cited patent to Grube expressly concerns a cleaning sheet for removing debris from a probe tip, where the sheet comprises an outer surface layer 302 on a roller 204 attached to a support arm 202. Thus, the Examiner asserts that this feature is expressly met. Here, the limitation that the material is "adapted to receive penetrating probe needles and remove and retain impurities on a tip of said probe needle" would overcome this basis for rejection. As already noted, Grube does not operate by penetration, but by rubbing the probe tips along the surface. Moreover, Grube requires use of an abrasive, which is consistent with having a tough outer layer that would prevent penetration by a probe.

No Abrasive

The Examiner notes that the arm 202 supports a roller 204 and/or an abrasive roller or other surface, as taught at col. 12, lines 56-57. Given this statement of "alternative" roller structures, one of which can be abrasive, the Examiner concludes that roller 204 would not have an abrasive.

In reply, Applicants respectfully submit that the cleaning technique for Grube is to rub a surface against the probes (see Fig. 8), rather than to have the probes enter or penetrate the material. Thus, the materials in Grube are not intended to remove and retain the impurities. Moreover, the passage cited by the Examiner has to do with removing debris from a wafer, and not from the tips of probes. Thus, the presence of an abrasive on the outer surface of one roller does not mean, implicitly or expressly, that there is no abrasive in the interior of any composition.

Claim Rejections - 35 U.S.C. § 103

Claims 3, 4, 6, 9 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Grube (6,817,052) in view of Skinner et al. Applicants would respectfully traverse this rejection for at least the following reasons.

As a preliminary matter, Applicants note that in paragraph 11 of the Office Action, the Examiner has expressly withdrawn any rejection based on Maekawa (2002/0190737). However, the Examiner still comments about the teachings of Maekawa in paragraph 15 on page 6 of the Office Action. Applicants cannot determine the manner and content of the rejection of the listed claims. This renders the rejection confusing and indefinite, and requires a new Office Action if this rejection is to be maintained. In any event, as already asserted separately for the two references, neither reference alone, or the two in combination, can render the claimed invention obvious.

The Examiner asserts that Grube teaches most of the claimed invention but relies upon Skinner for a teaching of a polyurethane being formed from a polyol and polyisocyanate, or that the polymeric mixture is cured by radiation. The Examiner asserts that Skinner teaches such limitations in the abstract, and that the coating is free from solvent and fully crosslinked, at col. 2, lines 64-68.

Parent claim 1 had been amended to specify that the material "does not contain additives that promote wear" and is "adapted to receive penetrating probe needles and remove and retain impurities on a tip of said probe needle." Because the present invention intends to have the probe penetrate into the layer, rather than slide across it, Grube et al teaches directly opposite to the present invention. Grube requires use of an abrasive, which is consistent with having a tough outer layer that would prevent penetration by a probe. Neither Skinner nor Maekawa satisfy this limitation in the claims.

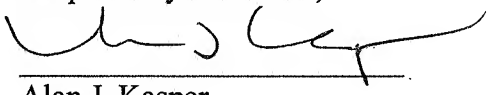
Thus, on the basis of the foregoing argument and amendment, the claims should be patentable.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Alan J. Kasper
Registration No. 25,426

Date: July 18, 2006